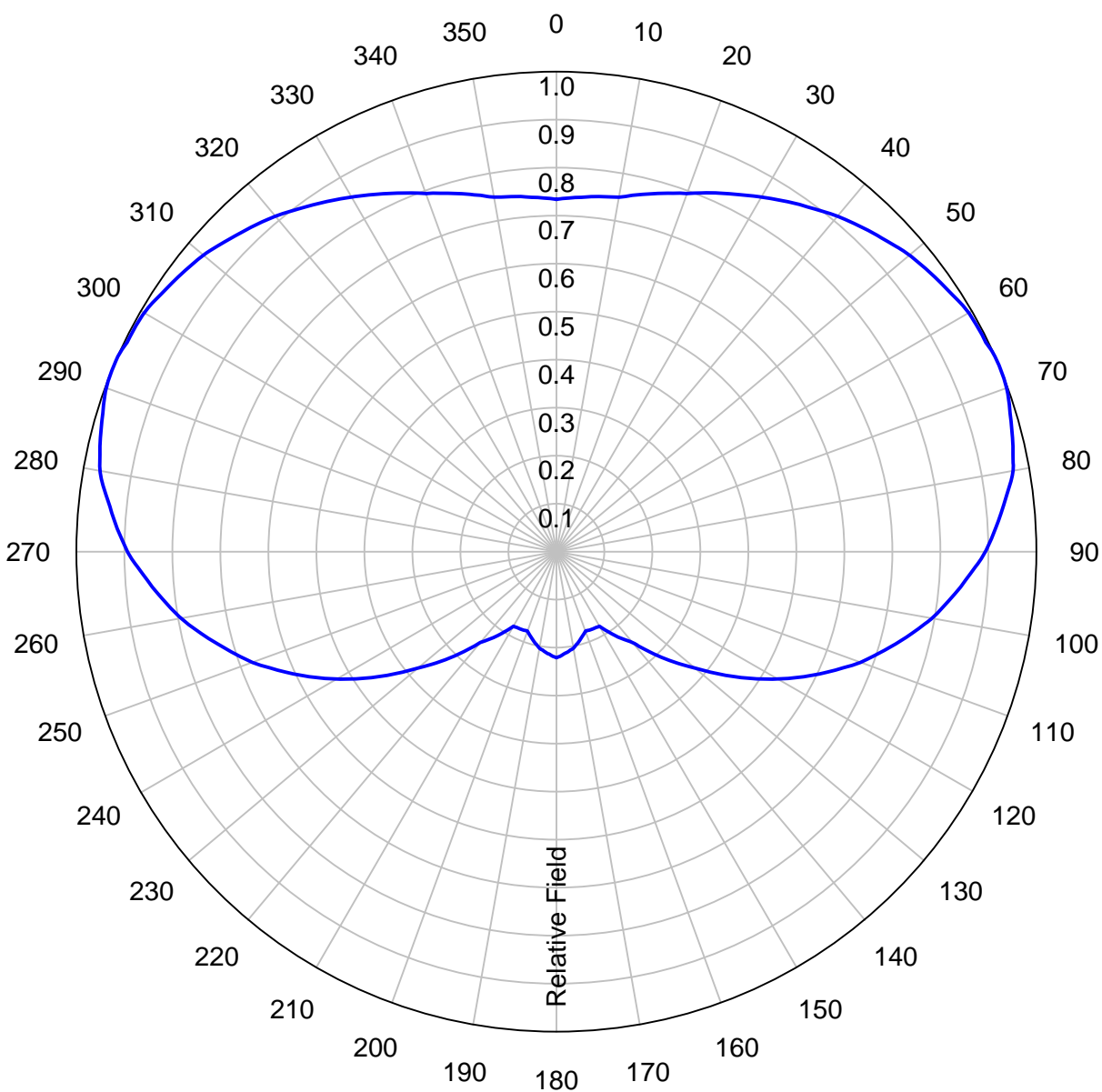


AZIMUTH PATTERN**Type:****ALP-PR****Channel:****18****Directivity:****Numeric****dBd****1.92****2.83****Peak(s) at:****Location:****Polarization:****Horizontal**

Note: Pattern shape and directivity may vary with channel and mouting configuration.

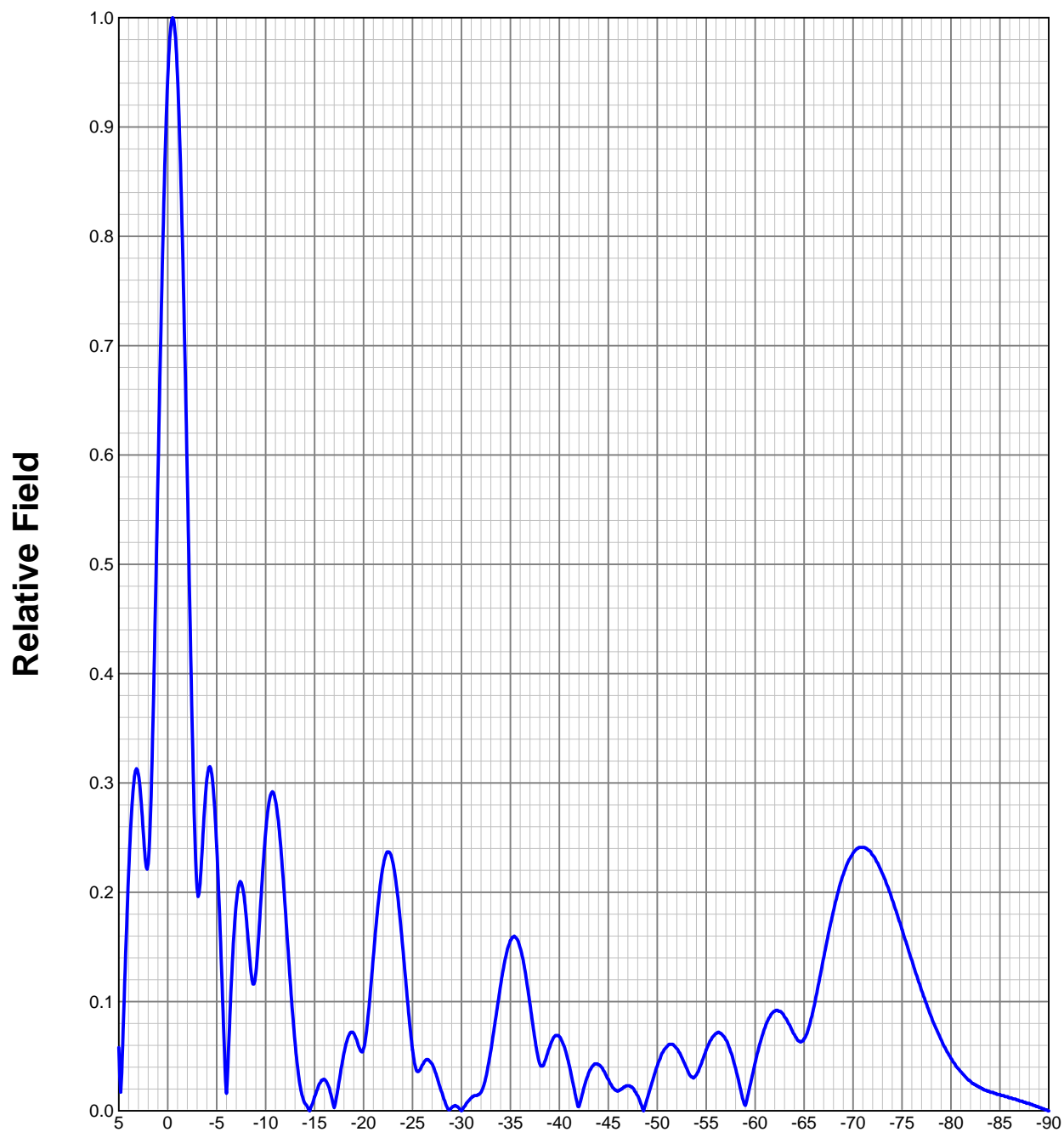


TABULATED DATA FOR AZIMUTH PATTERN

Type: ALP-PR

PolarizationHorizontal

| ANGLE | FIELD | dB | ANGLE | FIELD | dB | ANGLE | FIELD | dB | ANGLE | FIELD | dB |
|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|-------|-------|
| 0 | 0.734 | -2.69 | 92 | 0.874 | -1.17 | 184 | 0.214 | -13.39 | 276 | 0.937 | -0.57 |
| 2 | 0.737 | -2.65 | 94 | 0.854 | -1.37 | 186 | 0.211 | -13.51 | 278 | 0.952 | -0.43 |
| 4 | 0.740 | -2.62 | 96 | 0.835 | -1.57 | 188 | 0.207 | -13.68 | 280 | 0.966 | -0.30 |
| 6 | 0.744 | -2.57 | 98 | 0.815 | -1.78 | 190 | 0.204 | -13.81 | 282 | 0.972 | -0.25 |
| 8 | 0.747 | -2.53 | 100 | 0.795 | -1.99 | 192 | 0.198 | -14.07 | 284 | 0.979 | -0.18 |
| 10 | 0.750 | -2.50 | 102 | 0.771 | -2.26 | 194 | 0.193 | -14.29 | 286 | 0.985 | -0.13 |
| 12 | 0.759 | -2.40 | 104 | 0.747 | -2.53 | 196 | 0.187 | -14.56 | 288 | 0.992 | -0.07 |
| 14 | 0.768 | -2.29 | 106 | 0.722 | -2.83 | 198 | 0.182 | -14.80 | 290 | 0.998 | -0.02 |
| 16 | 0.776 | -2.20 | 108 | 0.698 | -3.12 | 200 | 0.176 | -15.09 | 292 | 1.000 | 0.00 |
| 18 | 0.785 | -2.10 | 110 | 0.674 | -3.43 | 202 | 0.177 | -15.04 | 294 | 1.000 | 0.00 |
| 20 | 0.794 | -2.00 | 112 | 0.645 | -3.81 | 204 | 0.177 | -15.04 | 296 | 0.995 | -0.04 |
| 22 | 0.806 | -1.87 | 114 | 0.617 | -4.19 | 206 | 0.178 | -14.99 | 298 | 0.994 | -0.05 |
| 24 | 0.818 | -1.74 | 116 | 0.588 | -4.61 | 208 | 0.178 | -14.99 | 300 | 0.993 | -0.06 |
| 26 | 0.829 | -1.63 | 118 | 0.560 | -5.04 | 210 | 0.179 | -14.94 | 302 | 0.987 | -0.11 |
| 28 | 0.841 | -1.50 | 120 | 0.531 | -5.50 | 212 | 0.193 | -14.29 | 304 | 0.980 | -0.18 |
| 30 | 0.853 | -1.38 | 122 | 0.500 | -6.02 | 214 | 0.206 | -13.72 | 306 | 0.974 | -0.23 |
| 32 | 0.865 | -1.26 | 124 | 0.469 | -6.58 | 216 | 0.220 | -13.15 | 308 | 0.967 | -0.29 |
| 34 | 0.877 | -1.14 | 126 | 0.439 | -7.15 | 218 | 0.233 | -12.65 | 310 | 0.961 | -0.35 |
| 36 | 0.888 | -1.03 | 128 | 0.408 | -7.79 | 220 | 0.247 | -12.15 | 312 | 0.951 | -0.44 |
| 38 | 0.900 | -0.92 | 130 | 0.377 | -8.47 | 222 | 0.273 | -11.28 | 314 | 0.941 | -0.53 |
| 40 | 0.912 | -0.80 | 132 | 0.351 | -9.09 | 224 | 0.299 | -10.49 | 316 | 0.932 | -0.61 |
| 42 | 0.922 | -0.71 | 134 | 0.325 | -9.76 | 226 | 0.325 | -9.76 | 318 | 0.922 | -0.71 |
| 44 | 0.932 | -0.61 | 136 | 0.299 | -10.49 | 228 | 0.351 | -9.09 | 320 | 0.912 | -0.80 |
| 46 | 0.941 | -0.53 | 138 | 0.273 | -11.28 | 230 | 0.377 | -8.47 | 322 | 0.900 | -0.92 |
| 48 | 0.951 | -0.44 | 140 | 0.247 | -12.15 | 232 | 0.408 | -7.79 | 324 | 0.888 | -1.03 |
| 50 | 0.961 | -0.35 | 142 | 0.233 | -12.65 | 234 | 0.439 | -7.15 | 326 | 0.877 | -1.14 |
| 52 | 0.967 | -0.29 | 144 | 0.220 | -13.15 | 236 | 0.469 | -6.58 | 328 | 0.865 | -1.26 |
| 54 | 0.974 | -0.23 | 146 | 0.206 | -13.72 | 238 | 0.500 | -6.02 | 330 | 0.853 | -1.38 |
| 56 | 0.980 | -0.18 | 148 | 0.193 | -14.29 | 240 | 0.531 | -5.50 | 332 | 0.841 | -1.50 |
| 58 | 0.987 | -0.11 | 150 | 0.179 | -14.94 | 242 | 0.560 | -5.04 | 334 | 0.829 | -1.63 |
| 60 | 0.993 | -0.06 | 152 | 0.178 | -14.99 | 244 | 0.588 | -4.61 | 336 | 0.818 | -1.74 |
| 62 | 0.994 | -0.05 | 154 | 0.178 | -14.99 | 246 | 0.617 | -4.19 | 338 | 0.806 | -1.87 |
| 64 | 0.995 | -0.04 | 156 | 0.177 | -15.04 | 248 | 0.645 | -3.81 | 340 | 0.794 | -2.00 |
| 66 | 1.000 | 0.00 | 158 | 0.177 | -15.04 | 250 | 0.674 | -3.43 | 342 | 0.785 | -2.10 |
| 68 | 1.000 | 0.00 | 160 | 0.176 | -15.09 | 252 | 0.698 | -3.12 | 344 | 0.776 | -2.20 |
| 70 | 0.998 | -0.02 | 162 | 0.182 | -14.80 | 254 | 0.722 | -2.83 | 346 | 0.768 | -2.29 |
| 72 | 0.992 | -0.07 | 164 | 0.187 | -14.56 | 256 | 0.747 | -2.53 | 348 | 0.759 | -2.40 |
| 74 | 0.985 | -0.13 | 166 | 0.193 | -14.29 | 258 | 0.771 | -2.26 | 350 | 0.750 | -2.50 |
| 76 | 0.979 | -0.18 | 168 | 0.198 | -14.07 | 260 | 0.795 | -1.99 | 352 | 0.747 | -2.53 |
| 78 | 0.972 | -0.25 | 170 | 0.204 | -13.81 | 262 | 0.815 | -1.78 | 354 | 0.744 | -2.57 |
| 80 | 0.966 | -0.30 | 172 | 0.207 | -13.68 | 264 | 0.835 | -1.57 | 356 | 0.740 | -2.62 |
| 82 | 0.952 | -0.43 | 174 | 0.211 | -13.51 | 266 | 0.854 | -1.37 | 358 | 0.737 | -2.65 |
| 84 | 0.937 | -0.57 | 176 | 0.214 | -13.39 | 268 | 0.874 | -1.17 | 360 | 0.734 | -2.69 |
| 86 | 0.923 | -0.70 | 178 | 0.218 | -13.23 | 270 | 0.894 | -0.97 | | | |
| 88 | 0.908 | -0.84 | 180 | 0.221 | -13.11 | 272 | 0.908 | -0.84 | | | |
| 90 | 0.894 | -0.97 | 182 | 0.218 | -13.23 | 274 | 0.923 | -0.70 | | | |

ELEVATION PATTERN**Type:****ALP16M2****Channel:****18****Directivity:****Numeric****dBd****Location:****Main Lobe:****16.59****12.20****Beam Tilt:****-0.50****Horizontal:****14.82****11.71****Polarization:****Horizontal**

TABULATED DATA FOR ELEVATION PATTERN

Type: ALP16M2

PolarizationHorizontal

| ANGLEFIELD | dB | ANGLEFIELD | dB | ANGLEFIELD | dB | ANGLEFIELD | dB | ANGLEFIELD | dB |
|------------|-------|------------|--------|------------|--------|------------|-------|------------|--------|
| 5.00 | 0.058 | -24.73 | -6.75 | 0.160 | -15.92 | -27.00 | 0.043 | -27.33 | -50.50 |
| 4.75 | 0.026 | -31.70 | -7.00 | 0.190 | -14.42 | -27.50 | 0.031 | -30.17 | -51.00 |
| 4.50 | 0.089 | -21.01 | -7.25 | 0.206 | -13.72 | -28.00 | 0.017 | -35.39 | -51.50 |
| 4.25 | 0.156 | -16.14 | -7.50 | 0.209 | -13.60 | -28.50 | 0.004 | -47.96 | -52.00 |
| 4.00 | 0.217 | -13.27 | -7.75 | 0.199 | -14.02 | -29.00 | 0.003 | -50.46 | -52.50 |
| 3.75 | 0.265 | -11.55 | -8.00 | 0.179 | -14.94 | -29.50 | 0.004 | -47.96 | -53.00 |
| 3.50 | 0.297 | -10.54 | -8.25 | 0.152 | -16.33 | -30.00 | 0.000 | -40.00 | -53.50 |
| 3.25 | 0.312 | -10.12 | -8.50 | 0.127 | -17.92 | -30.50 | 0.007 | -43.10 | -54.00 |
| 3.00 | 0.308 | -10.23 | -8.75 | 0.116 | -18.71 | -31.00 | 0.012 | -38.42 | -54.50 |
| 2.75 | 0.287 | -10.84 | -9.00 | 0.126 | -17.99 | -31.50 | 0.014 | -37.08 | -55.00 |
| 2.50 | 0.255 | -11.87 | -9.25 | 0.155 | -16.19 | -32.00 | 0.017 | -35.39 | -55.50 |
| 2.25 | 0.227 | -12.88 | -9.50 | 0.191 | -14.38 | -32.50 | 0.031 | -30.17 | -56.00 |
| 2.00 | 0.226 | -12.92 | -9.75 | 0.226 | -12.94 | -33.00 | 0.055 | -25.19 | -56.50 |
| 1.75 | 0.274 | -11.24 | -10.00 | 0.255 | -11.87 | -33.50 | 0.085 | -21.41 | -57.00 |
| 1.50 | 0.359 | -8.90 | -10.50 | 0.289 | -10.78 | -34.00 | 0.115 | -18.79 | -57.50 |
| 1.25 | 0.467 | -6.62 | -11.00 | 0.284 | -10.93 | -34.50 | 0.140 | -17.08 | -58.00 |
| 1.00 | 0.580 | -4.73 | -11.50 | 0.246 | -12.18 | -35.00 | 0.156 | -16.14 | -58.50 |
| 0.75 | 0.693 | -3.19 | -12.00 | 0.186 | -14.61 | -35.50 | 0.159 | -15.97 | -59.00 |
| 0.50 | 0.794 | -2.00 | -12.50 | 0.120 | -18.42 | -36.00 | 0.149 | -16.54 | -59.50 |
| 0.25 | 0.880 | -1.11 | -13.00 | 0.063 | -24.01 | -36.50 | 0.128 | -17.86 | -60.00 |
| 0.00 | 0.945 | -0.49 | -13.50 | 0.024 | -32.40 | -37.00 | 0.098 | -20.18 | -60.50 |
| -0.25 | 0.986 | -0.13 | -14.00 | 0.007 | -43.10 | -37.50 | 0.066 | -23.61 | -61.00 |
| -0.50 | 1.000 | 0.00 | -14.50 | 0.000 | -40.00 | -38.00 | 0.043 | -27.33 | -61.50 |
| -0.75 | 0.986 | -0.12 | -15.00 | 0.013 | -37.72 | -38.50 | 0.045 | -26.94 | -62.00 |
| -1.00 | 0.946 | -0.48 | -15.50 | 0.025 | -32.04 | -39.00 | 0.058 | -24.73 | -62.50 |
| -1.25 | 0.881 | -1.10 | -16.00 | 0.029 | -30.75 | -39.50 | 0.068 | -23.35 | -63.00 |
| -1.50 | 0.796 | -1.98 | -16.50 | 0.021 | -33.56 | -40.00 | 0.068 | -23.35 | -63.50 |
| -1.75 | 0.693 | -3.19 | -17.00 | 0.003 | -50.46 | -40.50 | 0.059 | -24.58 | -64.00 |
| -2.00 | 0.579 | -4.75 | -17.50 | 0.027 | -31.37 | -41.00 | 0.042 | -27.54 | -64.50 |
| -2.25 | 0.462 | -6.71 | -18.00 | 0.053 | -25.51 | -41.50 | 0.021 | -33.56 | -65.00 |
| -2.50 | 0.350 | -9.12 | -18.50 | 0.069 | -23.22 | -42.00 | 0.004 | -47.96 | -65.50 |
| -2.75 | 0.258 | -11.78 | -19.00 | 0.071 | -22.97 | -42.50 | 0.021 | -33.56 | -66.00 |
| -3.00 | 0.203 | -13.85 | -19.50 | 0.059 | -24.58 | -43.00 | 0.035 | -29.12 | -66.50 |
| -3.25 | 0.204 | -13.83 | -20.00 | 0.057 | -24.88 | -43.50 | 0.042 | -27.54 | -67.00 |
| -3.50 | 0.236 | -12.54 | -20.50 | 0.090 | -20.92 | -44.00 | 0.042 | -27.54 | -67.50 |
| -3.75 | 0.275 | -11.21 | -21.00 | 0.141 | -17.02 | -44.50 | 0.037 | -28.64 | -68.00 |
| -4.00 | 0.304 | -10.34 | -21.50 | 0.190 | -14.42 | -45.00 | 0.029 | -30.75 | -68.50 |
| -4.25 | 0.315 | -10.05 | -22.00 | 0.224 | -13.00 | -45.50 | 0.021 | -33.56 | -69.00 |
| -4.50 | 0.308 | -10.23 | -22.50 | 0.237 | -12.51 | -46.00 | 0.018 | -34.89 | -69.50 |
| -4.75 | 0.282 | -10.98 | -23.00 | 0.227 | -12.88 | -46.50 | 0.021 | -33.56 | -70.00 |
| -5.00 | 0.242 | -12.32 | -23.50 | 0.196 | -14.15 | -47.00 | 0.023 | -32.77 | -70.50 |
| -5.25 | 0.190 | -14.45 | -24.00 | 0.150 | -16.48 | -47.50 | 0.021 | -33.56 | -71.00 |
| -5.50 | 0.129 | -17.79 | -24.50 | 0.100 | -20.00 | -48.00 | 0.014 | -37.08 | -71.50 |
| -5.75 | 0.065 | -23.74 | -25.00 | 0.056 | -25.04 | -48.50 | 0.002 | -53.98 | -72.00 |
| -6.00 | 0.016 | -35.92 | -25.50 | 0.036 | -28.87 | -49.00 | 0.012 | -38.42 | -72.50 |
| -6.25 | 0.065 | -23.74 | -26.00 | 0.042 | -27.54 | -49.50 | 0.027 | -31.37 | -73.00 |
| -6.50 | 0.118 | -18.56 | -26.50 | 0.047 | -26.56 | -50.00 | 0.041 | -27.74 | -73.50 |